## REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons which follow. Claims 8 and 10-17 have been cancelled without prejudice or disclaimer, one or more of which may be pursued in a divisional application. Claims 1, 9 and 18 have been amended. Claims 10-17 stand currently withdrawn from consideration. Claims 1-7, 9 and 18 are pending for reconsideration.

**Issue regarding Figure 8B**

As to the remarks concerning Figure 8B, that figure was pointed to as illustrating the feature of claim 1 of forming "an image corresponding to the image data produced by the operating condition image producing means on the image formation medium"; for example, forming an image that depicts the data relating to the operating conditions on the paper. The "image corresponding to the image data" in this recitation is exemplified by P1 in Figure 8B. The main image P2 is separate from the image data produced by the operating condition image producing means.

To further exemplify and explain this feature, see Figure 5 in which the image generation section 133 generates character image data such as that shown in FIG. 6A or pattern image data such as shown in FIG. 6B, which indicate the current image input conditions which are operating conditions, for example, resolution of the color scanner section 1 and the sampling rate. In FIG. 3, the image synthesis section 134 superimposes the generated image data on an image data which was read by the scanner section 1 and which was subjected to image processing. The composite image is printed out by the color printer section 2 as shown in FIG. 8B. The character string image P1 exemplified at the top of FIG. 8 is the character string image shown in FIG. 6A. In this manner, the operating conditions of the apparatus such as the image input condition are printed on a sheet of paper.

**Rejections under 35 U.S.C. § 103**

Claims 1-7 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,822,507 to Uda et al. (hereafter "Uda") in view of U.S. Patent

No. 6,185,000 to Shiota (hereafter "Shiota"). Claims 8 and 9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Uda in view of Shiota and further in view of U.S. Patent No. 5,475,475 to Kohtani et al. (hereafter "Kohtani"). Applicants respectfully traverse these rejections, insofar as they pertain to the claims as presently amended, for the following reasons.

Claim 1, as amended, includes a means for controlling an image forming means to form an image corresponding to first and second image data synthesized by a synthesizing means on an image formation medium. The first image data is provided by a reading means, which is for reading a document, while the second image data is indicative of operating conditions. The operating conditions are those of at least one of the reading means, an image processing means and an image formation means, where the operating conditions determine image quality. Independent claim 18, as amended, is similar to claim 1, but avoids any possible application of 35 U.S.C. § 112, paragraph 6.

Thus, in the present invention of claims 1 and 18, the first and second image data, which have been synthesized together, are formed as an image on an image formation medium, where the second image data is indicative of operating conditions which determine image quality. Beneficially, the operating condition information, which determines image quality, is formed on the image formation medium, and aids a serviceperson in performing image adjustment work on the system, since information on the apparatus operating conditions can be printed (or otherwise formed on the image formation medium) along with an image based on other image data. The serviceperson can readily find in one place the image and operating conditions, so adjustment can be made quickly and effectively.

The references of Uda, Shiota and Kohtani do not disclose or suggest the present invention of claims 1 or 18, nor its attendant advantages.

Uda is directed to a scanner printer server that selectively controls a scanner and a printer. The scanner printer server 102 can transmit a print command to a printer 104 (col. 4, lines 61-63). Status information is transmitted from the printer 104 (col. 4, lines 63-65). The data of the status information, however, is not the type of second image data as recited in claims 1 or 18. The second image data as recited in claims 1

and 18 is indicative of operation conditions that determine image quality. By contrast, the status information of Uda is information indicating that paper is out, or that the paper is jammed (see col. 4, lines 63-65), not information indicative of operating conditions that determine image quality.

Furthermore, Uda does not disclose that both first and second image data, which have been synthesized, are formed together as an image on an image formation medium, where the second image data is indicative of operating conditions. Admitting this failing of Uda, the Office Action points to Shiota as allegdly disclosing "an apparatus for instructing printing of recording information (operating condition image) together with image data on a same recording medium." However, even if Uda were modified to print the Uda status information together with other image data on a single sheet of paper, the modified Uda device would not meet the limitations of claim 1 or 18, at least because, as discussed above, the status information of Uda is not indicative of operating conditions that determine image quality. Thus, even if the Uda and Shiota could be properly combined (which they cannot) the combination would not meet the limitations of either claim 1 or claim 18.

Moreover, Shiota provides no motivation to modify Uda as suggested in the Office Action. Shiota is directed to a system including a digital camera 1, and a separate personal computer 3 that can manipulate image data from a memory card 2 from the digital camera. Both image data 7 and recording information 8 appear to be stored in the memory card 2 (col. 3, lines 46-55). The memory card is input to the separate computer 3, where a user runs a program which displays a printing instruction screen 9, by which a user can select which recording information to print out in a picture print 6 on a picture printer 5 separate from the computer (Figure 1, col. 3, line 5 - col. 4, line 16). Thus, Shiota suggests only using a computer separate from a digital camera to synthesize image data with recording information. One skilled in the printer art, such as the art to which Uda pertains, would not have been motivated to use a computer separate from the Uda scanner printer server, to synthesize image data with other information, and then to print out such synthesized data as an image.

The present invention of claims 1 and 18 provides important information to a serviceperson in a format which aids the serviceperson in image adjustment work, an

advantage not recognized or suggested by the devices of Uda or Shiota. In the present invention of claims 1 and 18, operating condition information, which determines image quality, is additionally formed on the image formation medium with other image data. This feature is not disclosed or suggested in any reference. This feature aids a serviceperson in performing image adjustment work on the system. The image processing apparatus of the claims enable a serviceperson to locate the cause of image quality degradation without requiring some specified level of experience. In other words, the present invention aids the serviceperson who repairs the image forming apparatus by providing both the first image data as well as the second image data (with information indicative of operating conditions that determine image quality) on the same recording medium. As an example, in some embodiments of the invention, a serviceperson can check the operating conditions printed on a sheet of paper, as well as an image copy obtained by a scanner. In this manner, the serviceperson can easily determine which portion of the image forming apparatus is out of order.

In this regard, Shiota pertains to providing recording information 8 on the same medium as image data 7 only in the context of a digital camera user, not a digital camera repairman, in addition to its shortcomings noted above. Shiota simply does not provide the proper motivation in a manner that reaches the present invention. With respect to Uda, Uda does not provide the Uda status information on the same medium as image data in any fashion. Neither of these reference suggest the advantages of the present invention of claims 1 and 18 where a repairman may more easily perform his repairs.

Kohtani does not cure the deficiencies of Uda or Shiota, but merely discloses superimposing two or more different images one on top of another on a sheet of paper. Kohtani, however, does not disclose or suggest superimposing an image indicating the operating conditions of an apparatus on another image read by a reading means or reader. Kohtani does not provide any motivation to make the combination of the claimed invention.

For the reasons given above, applicants submit that claims 1 and 18, and claims 2-7 and 9 depending from claim 1, are patentable over the art cited in the rejections

under 35 U.S.C. 103. Accordingly, applicants respectfully request that the rejection of claims 1-9 and 18 under 35 U.S.C. 103 be withdrawn.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

Date _____     By _____ Reg. No. 43,438

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## MARKED UP VERSION SHOWING CHANGES MADE

Below are the marked up amended claims:

1.     (Twice Amended) An image forming apparatus comprising:

reading means for reading a document <u>and providing image data on the</u> <u>document as first image data;</u>

image processing means for processing <u>the first</u> image data [read] <u>provided</u> by the reading means;

image forming means for forming an image on an image formation medium [based on the image data processed by the image processing means] <u>corresponding to</u> <u>input image data;</u>

operating condition image producing means for producing [an] <u>second</u> image data indicative of operating conditions <u>which are those</u> of at least one of the <u>reading means,</u> the image processing means and the image formation means <u>and which determine</u> <u>image quality</u>; [and]

<u>synthesizing means for synthesizing the first image data processed by the image</u> <u>processing means with the second image data produced by the operating condition</u> <u>image producing means; and</u>

means for controlling the image forming means to form an image corresponding to the <u>first and second</u> image data [produced by the operating condition image producing means] <u>synthesized by the synthesizing means</u> on the image formation medium.

9.     (Twice Amended) An image forming apparatus according to [claim 8] <u>claim 1</u>, further comprising:

designating means for designating whether or not [an] <u>the first</u> image <u>data</u> obtained by the image processing means should be synthesized with the <u>second</u> image <u>data</u> [corresponding to the image data] produced by the operating condition image producing means, wherein

said synthesizing means synthesizes the <u>first</u> image <u>data</u> obtained by the image processing means with the <u>second</u> image <u>data</u> [~~corresponding to the image data~~] produced by the operating condition image producing means and provides [a] resultant synthesized image <u>data</u> in a case where the designating means designates synthesis, and provides only the <u>first</u> image <u>data</u> obtained by the image processing means in other cases.

18.    (Once Amended)  An image forming apparatus comprising:

a reader which reads a document <u>and provides image data on the document as first image data</u>;   .

an image processing section which processes <u>the first</u> image data [read] <u>provided</u> by the reader;

an image forming section which forms an image on an image formation medium [based on the image data processed by the image processing section] <u>corresponding to input image data</u>;

an operating condition image producing section which produces <u>second</u> image data indicative of operating conditions <u>which are those</u> of at least one of the reader, the image processing section and the image forming section, and <u>which determine image quality;</u>

<u>a synthesizing section for synthesizing the first image data processed by the image processing section with the second image data produced by the operating condition image producing section; and</u>

a controller which controls the image forming section to form an image corresponding to the <u>first and second</u> image data [produced by the operating condition image producing section] <u>synthesized by the synthesizing section</u> on the image formation medium.